

**Central Maine Medical Center
Androscoggin County
Lewiston, Maine
A-387-71-E-A (SM)**

**Departmental
Findings of Fact and Order
Air Emission License
Amendment #1**

After review of the air emissions license amendment application, staff investigation reports and other documents in the applicant's file in the Bureau of Air Quality, pursuant to 38 M.R.S.A., Section 344 and Section 590, the Department finds the following facts:

I. REGISTRATION

A. Introduction

1. Central Maine Medical Center (CMMC) of Lewiston, Maine was issued Air Emission License A-387-71-D-R on September 26, 2001, permitting the operation of emission sources associated with their healthcare facility.
2. CMMC has requested an amendment to their license in order to permit the use of a new 1500 kW emergency generator. CMMC was previously licensed to operate three boilers and two additional emergency generators.

B. Emission Equipment

The following equipment is addressed in this air emission license:

Electrical Generation Equipment

<u>Equipment</u>	<u>Power Output (kW)</u>	<u>Firing Rate (gal/hr)</u>	<u>Fuel Type, % sulfur</u>	<u>Stack #</u>
Generator #2	1500	102	Diesel, 0.05%	G-3

C. Application Classification

The modification of a minor source is considered a major modification based on whether or not expected emission increases exceed the "Significant Emission Levels" as defined in the Department's regulations. This modification is determined to be a minor modification and has been processed as such.

II. BEST PRACTICAL TREATMENT (BPT)

A. Introduction

In order to receive a license the applicant must control emissions from each unit to a level considered by the Department to represent Best Practical Treatment (BPT), as defined in Chapter 100 of the Department regulations. Separate control requirement categories exist for new and existing equipment as well as for those sources located in designated non-attainment areas.

BPT for new sources and modifications requires a demonstration that emissions are receiving Best Available Control Technology (BACT), as defined in Chapter 100 of the Department's regulations. BACT is a top-down approach to selecting air emission controls considering economic, environmental and energy impacts.

B. Generator #3

Generator #3 fires diesel fuel at a maximum design capacity of 102 gal/hr. The generator will only be operated to provide power in the event of an emergency.

"Emergency" is defined in Chapter 100 and throughout this document as: "... any situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the source to exceed a technology based emission limitation under the license, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error."

A summary of the BACT analysis for Generator #3 (1500 kW):

1. The emergency generator shall fire only diesel fuel with a maximum sulfur content not to exceed 0.05% by weight.
2. The emergency generator shall be limited to 500 hr/yr of operation based on a 12 month rolling total. Compliance shall be demonstrated by a written log of generator operating hours.
3. Chapter 106 regulates fuel sulfur content, however in this case a BACT analysis for SO₂ determined a more stringent limit of 0.05% was appropriate and shall be used.
4. Chapter 103 regulates PM emission limits. The PM₁₀ limits are derived from the PM limits.
5. NO_x, CO, and VOC emission limits are based on manufacturer's emission data.
6. Visible emissions from the Generator #3 shall not exceed 20% opacity on a 6-minute block average, except for no more than two 6-minute block averages in a continuous 3-hour period.

C. Annual Emissions

CMMC shall be restricted to the following annual emissions, based on a 12 month rolling total:

- 800,000 gallons of #6 fuel with a sulfur content not to exceed 0.7% by weight fired in Boilers #1, #2 and #3;
- 40,000,000 scf of natural gas fired in Boiler #3; and
- 500 hours of operation for each emergency generator on a 12-month rolling total, firing diesel fuel with a sulfur content not to exceed 0.05% by weight.

Total Licensed Annual Emission for the Facility
tons/year

(used to calculate the annual license fee)

	PM	PM ₁₀	SO ₂	NO _x	CO	VOC
Boilers #1, #2, #3 – fuel oil	12.0	12.0	44.2	36.0	2.0	0.08
Boiler #3 – nat. gas	2.45	2.45	0.02	2.0	1.68	0.11
Generator #1	0.21	0.21	0.09	5.44	1.45	0.14
Generator #2	0.18	0.18	0.08	4.68	1.25	0.12
Generator #3	0.42	0.42	0.18	11.2	1.58	0.30
Total TPY	15.26	15.26	44.57	59.32	7.96	0.75

III.AMBIENT AIR QUALITY ANALYSIS

Based on the above total facility emissions, CMMC is below the emissions level required for modeling and monitoring.

ORDER

Based on the above Findings and subject to conditions listed below, the Department concludes that the emissions from this source:

- will receive Best Practical Treatment,
- will not violate applicable emission standards,
- will not violate applicable ambient air quality standards in conjunction with emissions from other sources.

The Department hereby grants Air Emission License Amendment A-387-71-E-A subject to the conditions found in Air Emission License A-387-71-D-R, and in the following conditions:

The following replaces condition 16(D) of License A-387-71-D-R:

(16) **Emergency Generator**

D. Emissions from the emergency diesel generators shall not exceed the following:

Generator #1

Pollutant	Lb/MMBtu	lb/hr
PM	0.12	0.81
PM ₁₀	--	0.81
SO ₂	--	0.34
NO _x	--	21.76
CO	--	5.78
VOC	--	0.68

Generator #2

Pollutant	Lb/MMBtu	lb/hr
PM	0.12	0.70
PM ₁₀	--	0.70
SO ₂	--	0.30
NO _x	--	18.72
CO	--	4.97
VOC	--	0.59

Generator #3

Pollutant	Lb/MMBtu	lb/hr
PM	0.12	0.71
PM ₁₀	--	0.71
SO ₂	--	0.30
NO _x	--	44.8
CO	--	6.3
VOC	--	1.17

The following replaces Condition (16)(E) of License A-387-71-D-R:

(16) **Emergency Generators**

E. Visible emissions from Generators #1 and #2 shall each not exceed an opacity of 30% on a 6-minute block average basis, for no more than two 6-minute block averages in a 3-hour period. Visible emissions from Generator #3 shall not

exceed an opacity of 20% on a 6-minute block average basis, except for no more than two 6-minute block averages in a 3-hour period.

The following are new conditions:

(19) Payment of Annual License Fee

CMMC shall pay the annual air emission license fee within 30 days of January 31 of each year. Pursuant to Title 38-353-A, failure to pay this annual fee in the stated timeframe is sufficient grounds for revocation of the license under section 341-D, subsection 3.

(20) Term of License

This amendment shall expire concurrently with Air Emission License A-387-71-D-R. [MEDEP Chapter 115]

DONE AND DATED IN AUGUSTA, MAINE THIS DAY OF 2004.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: _____
DAWN R. GALLAGHER, COMMISSIONER

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: November 26, 2003

Date of application acceptance: December 17, 2003

Date filed with the Board of Environmental Protection: _____

This Order prepared by Rachel E. Pilling, Bureau of Air Quality.